Product Datasheet

CIP2A Antibody
NB100-68264

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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Publications: 11

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
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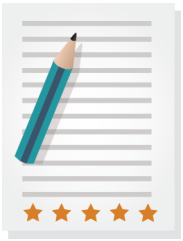
Updated 10/23/2024 v.20.1



NB100-68264

CIP2A Antibody

Product Information

Unit Size	0.1 ml
Concentration	0.2 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	TBS and 0.1% BSA
Target Molecular Weight	102 kDa

Product Description

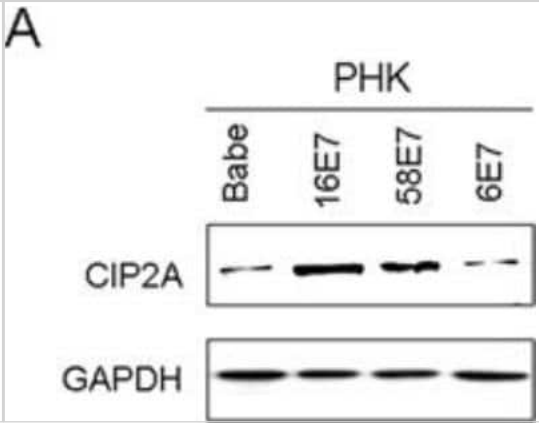
Host	Rabbit
Gene ID	57650
Gene Symbol	CIP2A
Species	Human, Mouse, Rat
Immunogen	The immunogen recognized by this antibody maps to a region between residue 853 and 903 of human cancerous inhibitor of PP2A using the numbering given in entry NP_065941.1 (GeneID 57650).

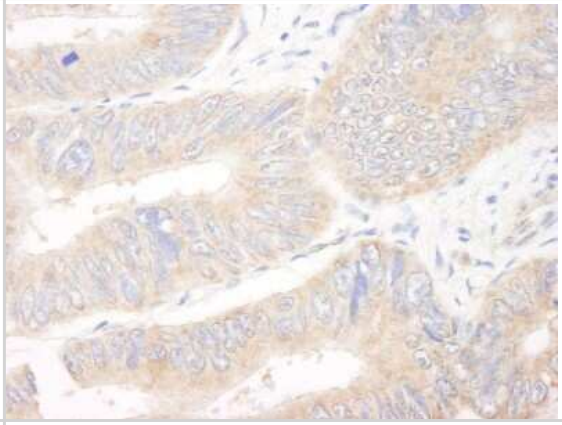
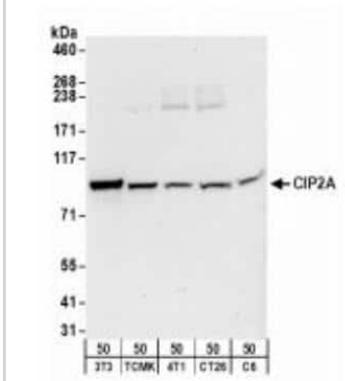
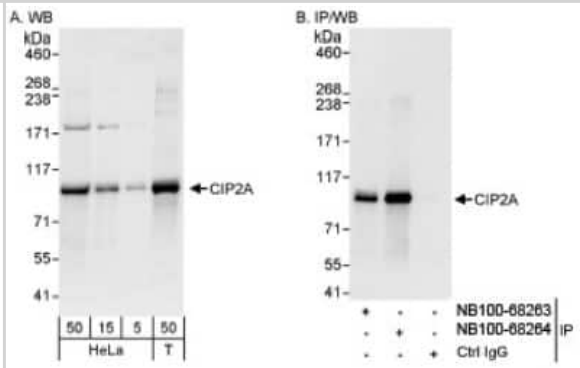
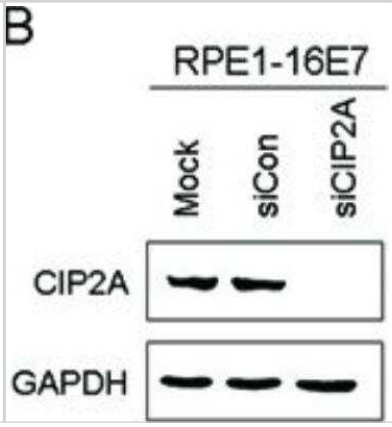
Product Application Details

Applications	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:2000-1:10000, Immunohistochemistry 1:100-1:500, Immunoprecipitation 2-5 ug/mg lysate, Immunohistochemistry-Paraffin 1:100-1:500, Knockdown Validated
Application Notes	Epitope retrieval with citrate buffer pH6.0 is recommended for FFPE tissue sections.

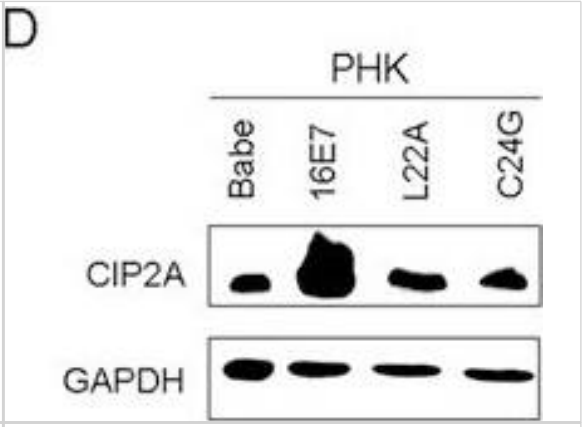
Images

Western Blot: CIP2A Antibody [NB100-68264] - HPV-16E7 and -58E7 upregulated CIP2A mRNA and protein levels in PHKs(A) Western blot analysis of CIP2A protein level in PHKs expressing HPV-16E7, -58E7, -6E7. Image collected and cropped by CiteAb from the following publication (oncotarget.com/fulltext/2867), licensed under a CC-BY license.

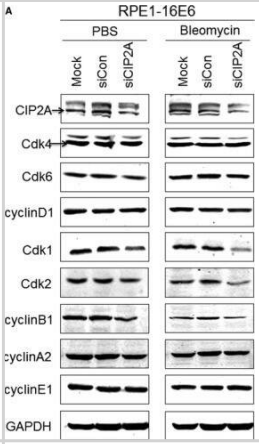


Immunohistochemistry-Paraffin: CIP2A Antibody [NB100-68264] - Human colon carcinoma. Antibody used at a dilution of 1:200 (1ug/ml).	
Western Blot: CIP2A Antibody [NB100-68264] - Whole cell lysate (50 ug) from NIH3T3, TCMK-1, 4T1, CT26.WT, and rat C6 cells.	
Western Blot: CIP2A Antibody [NB100-68264] - Detection of Human CIP2A on HeLa whole cell lysate using NB100-68264. CIP2A was also immunoprecipitated by rabbit anti-CIP2A antibody NB100-68263.	
Knockdown Validated: CIP2A Antibody [NB100-68264] - Knockdown of CIP2A inhibited cell proliferation and DNA synthesis of HPV-16E7-expressing cells with CIP2A siRNA for 48 hr. Image collected and cropped by CiteAb from the following publication (oncotarget.com/fulltext/2867), licensed under a CC-BY license.	

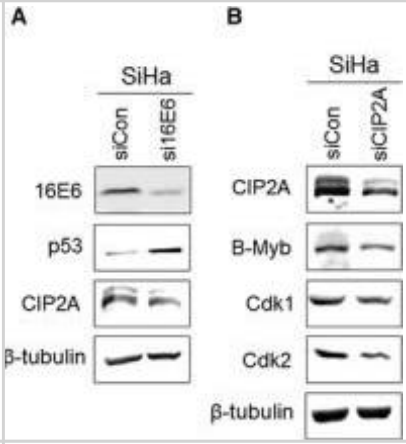
Western Blot: CIP2A Antibody [NB100-68264] - HPV-16E7 & -58E7 upregulated CIP2A mRNA & protein levels in PHKs(A) Western blot analysis of CIP2A protein level in PHKs expressing HPV-16E7, -58E7, -6E7; & (B) Quantification. (C) qRT-PCR analysis of CIP2A mRNA level in PHKs expressing HPV-16E7, -58E7, -6E7. (D) Western blot analysis of CIP2A protein level in PHKs expressing HPV-16E7 & 16E7 mutants L22A & C24G. Babe, vector control. *, P < 0.05; **, P < 0.01; & ***, P < 0.001. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/25650660), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



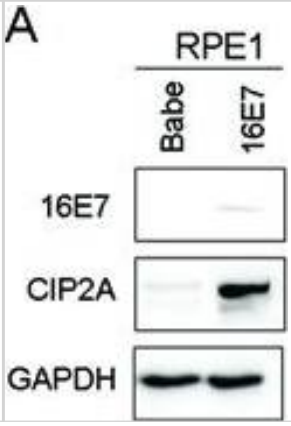
Western Blot: CIP2A Antibody [NB100-68264] - Silencing CIP2A caused decreased Cdk1 & Cdk2 proteins in 16E6□expressing cells. A, Western blot analysis of CIP2A, Cdk4, Cdk6, cyclin D1, Cdk1, Cdk2, cyclin B1, cyclin A2 & cyclin E1 protein levels in cells expressing HPV□16E6 transfected with CIP2A siRNA & then treated with PBS or 10 μg/mL bleomycin for 24 h. A representative of 3 independent experiments is shown. B, Quantification of all cell cycle□related proteins. Data from 3 experiments are summarized. C, Relative mRNA levels of all cell cycle□related genes determined by qRT□PCR. Data from 3 experiments are summarized. *, P < .05; **, P < .01 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29893470), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: CIP2A Antibody [NB100-68264] - Inhibition of Cdk1 & Cdk2 by CIP2A knockdown in cervical cancer SiHa cells caused G1 arrest. A, Western blot analysis of 16E6, p53 & CIP2A after HPV□16E6 knockdown in cervical cancer SiHa cells. B, Protein expression of CIP2A, B□Myb, Cdk1 & Cdk2 in SiHa cells after CIP2A knockdown. Data from a representative of 3 experiments are shown. C, Flow cytometric analysis of SiHa cells with CIP2A knockdown treated with PBS or bleomycin. A representative flow cytometry of 3 independent experiments is shown. D, Quantification of percentages G1 phase cells. Data from 3 experiments are summarized. *, P < .05 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29893470), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: CIP2A Antibody [NB100-68264] - Knockdown of CIP2A inhibited cell proliferation & DNA synthesis of HPV-16E7-expressing cells(A) Western blot analysis of protein level of 16E7 & CIP2A in RPE1-16E7 cells & (B) with CIP2A siRNA for 48 hr. (C) CCK8 assay of cell proliferation of RPE1-16E7 cells with CIP2A siRNA. (D) Flow cytometry of cells with CIP2A siRNA & labeled with BrdU for 2 hr, then stained with PI & BrdU; & (E), Quantification. Babe, vector control. **, P < 0.01. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/25650660), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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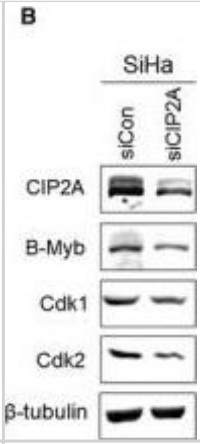
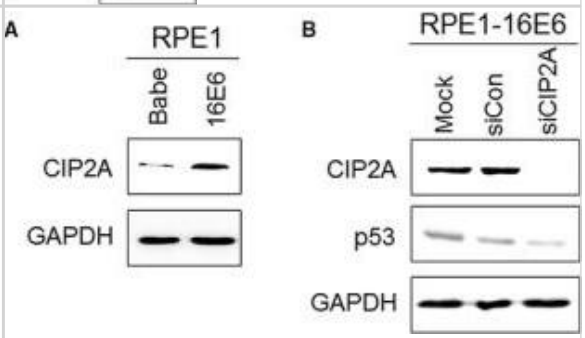
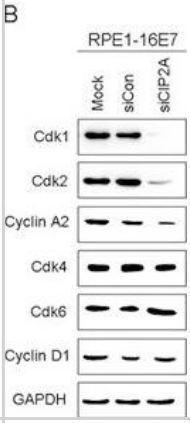


Western Blot: CIP2A Antibody [NB100-68264] - Inhibition of CIP2A by siRNA impeded cell viability & DNA synthesis in HPV□16E6–expressing cells. A, Elevated expression of CIP2A protein in 16E6□expressing RPE1 cells. B, Western blot analysis of CIP2A & p53 proteins after transfection with scrambled siRNA (siCon) or CIP2A siRNA (siCIP2A) for 48 h. A representative of 3 independent experiments is shown. C, Cell viability assay of RPE1□16E6 cells with CIP2A knockdown. D, Representative flow cytometry of BrdU staining profiles is shown. E, The mean & SD of BrdU□positive cells from 3 experiments are summarized. **, P < .01. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29893470), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: CIP2A Antibody [NB100-68264] - CIP2A siRNA knockdown caused G1 arrest & decreased Cdk1 & Cdk2 protein levels in E7-expressing cells(A) Flow cytometry of cells expressing 16E7 transfected with CIP2A siRNA for 48 hr, treated with DMSO control or bleomycin (10 µg/mL) for 24 hr, then stained with PI. G1, S & G2 phases are indicated. (B) Western blot analysis of Cdk1, Cdk2, Cyclin A2, Cdk4, Cdk6, Cyclin D1 protein levels in cells expressing HPV-16E7 transfected with CIP2A siRNA. Babe, vector control. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/25650660), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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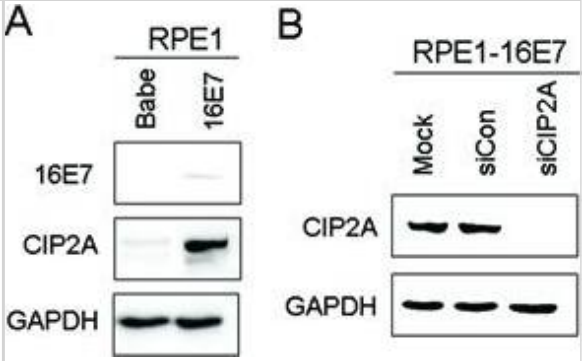

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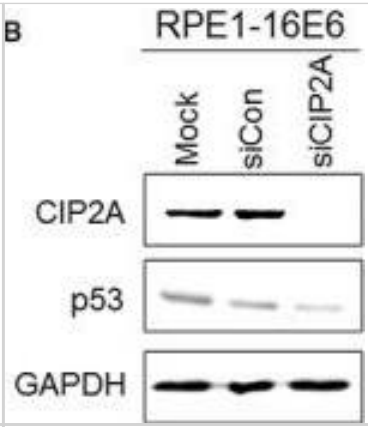
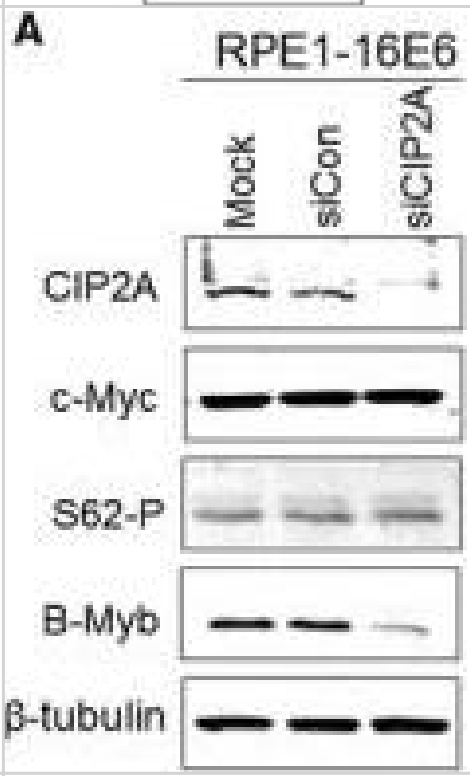
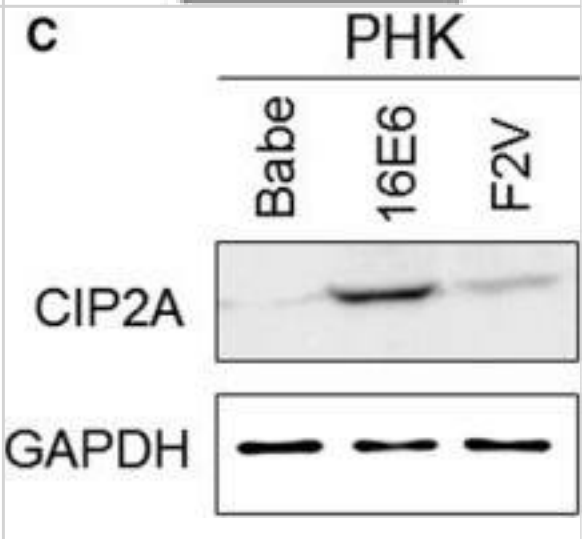


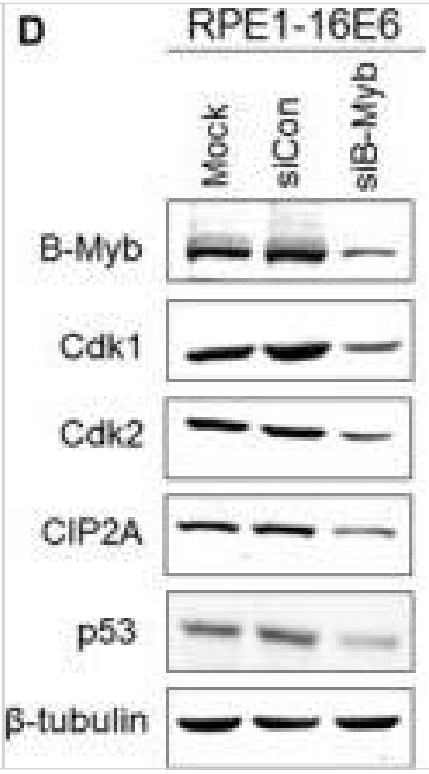
Western Blot: CIP2A Antibody [NB100-68264] - Regulation of Cdk1 & Cdk2 by CIP2A is dependent on B□Myb rather than c□Myc. A, Western blot analysis of CIP2A, c□Myc, phospho□S62□Myc & B□Myb protein levels in 16E6□expressing cells after CIP2A knockdown. β□Tubulin was used as a loading control. B, Protein levels of B□Myb, c□Myc & phospho □S62□Myc in 16E6□expressing PHKs & (C) RPE1 cells. D, Protein levels of B□Myb, Cdk1 & Cdk2, CIP2A & p53 in 16E6□expressing cells after B□Myb knockdown with siRNA. Data from a representative of 3 experiments are shown. E, Knockdown of B□Myb down□regulates Cdk1 & Cdk2 luciferase reporter activities. RPE1 cells were cotransfected with the Cdk1 or Cdk2 promoter□luciferase constructs & renilla luciferase control plasmid together with B□Myb siRNA plasmid. Cells were harvested after 48 h, & lysates were assayed for luciferase activity. F, Flow cytometric analysis of 16E6□expressing cells transfected with B□Myb siRNA treated with PBS or bleomycin. G1, S & G2 phases are indicated. A representative flow cytometry of 3 independent experiments is shown. G, Quantification of percentages G1 phase cells. Data from 3 experiments are summarized. H, Western blot analysis of B□Myb, Cdk1 & Cdk2 in B□Myb–overexpressing CIP2A knockdown cells. Data from a representative of 3 experiments are shown. *, P < .05; ***, P < .001 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29893470), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: CIP2A Antibody [NB100-68264] - Induction of CIP2A mRNA & protein expression by HPV□16E6 in PHKs. A, mRNA expression of HPV□16E6 in PHKs expressing 16E6 & F2V using β□actin as a loading control. B, Protein levels of HPV□16E6, p53 & p21 in PHKs expressing 16E6 & F2V. Expression of GAPDH was used as a loading control. A representative of 2 independent experiments is shown. C, HPV□16E6 expression leads to increased protein expression of CIP2A in PHKs. Data from a representative of 3 experiments are shown. D, Data from 3 experiments are summarized. E, Relative CIP2A mRNA expression was determined by qRT□PCR in the above cells. Data from 3 experiments are summarized. The mean & standard deviation (SD) of 3 independent experiments are shown. Babe, pBabe□puromycin vector. *, P < .05; **, P < .01; & ***, P < .001 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29893470), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: CIP2A Antibody [NB100-68264] - Regulation of Cdk1 & Cdk2 by CIP2A is dependent on B□Myb rather than c□Myc. A, Western blot analysis of CIP2A, c□Myc, phospho□S62□Myc & B□Myb protein levels in 16E6□expressing cells after CIP2A knockdown. β□Tubulin was used as a loading control. B, Protein levels of B□Myb, c□Myc & phospho □S62□Myc in 16E6□expressing PHKs & (C) RPE1 cells. D, Protein levels of B□Myb, Cdk1 & Cdk2, CIP2A & p53 in 16E6□expressing cells after B□Myb knockdown with siRNA. Data from a representative of 3 experiments are shown. E, Knockdown of B□Myb down□regulates Cdk1 & Cdk2 luciferase reporter activities. RPE1 cells were cotransfected with the Cdk1 or Cdk2 promoter□luciferase constructs & renilla luciferase control plasmid together with B□Myb siRNA plasmid. Cells were harvested after 48 h, & lysates were assayed for luciferase activity. F, Flow cytometric analysis of 16E6□expressing cells transfected with B□Myb siRNA treated with PBS or bleomycin. G1, S & G2 phases are indicated. A representative flow cytometry of 3 independent experiments is shown. G, Quantification of percentages G1 phase cells. Data from 3 experiments are summarized. H, Western blot analysis of B□Myb, Cdk1 & Cdk2 in B□Myb–overexpressing CIP2A knockdown cells. Data from a representative of 3 experiments are shown. *, P < .05; ***, P < .001 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29893470), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Miller RA Long-lived mice with reduced growth hormone signaling have a constitutive upregulation of hepatic chaperone-mediated autophagy Autophagy 2020-02-12 [PMID: 32013718] (WB, Mouse)

Details:
Snell dwarf mice

Tian Y, Chen H, Qiao L et al. CIP2A facilitates the G1/S cell cycle transition via B-Myb in human papillomavirus 16 oncoprotein E6-expressing cells J. Cell. Mol. Med. 2018-06-12 [PMID: 29893470] (WB, Human)

Zhang W, Chen H, Chen Y et al. Cancerous inhibitor of protein phosphatase 2A contributes to human papillomavirus oncoprotein E7-induced cell proliferation via E2F1. Oncotarget 2015-03-10 [PMID: 25650660] (WB)

Wu Y, Gu TT, Zheng PS. CIP2A cooperates with H-Ras to promote epithelial-mesenchymal transition in cervical-cancer progression. Cancer Lett 2015-01-28 [PMID: 25458953]

Johnson Mahlon D, Reeder Jay E, O'Connell Mary et al. CIP2A and PP2A in human leptomeninges, arachnoid granulations and meningiomas. J Clin Neurosci. 2014-07-08 [PMID: 25012485] (Human)

Guo Z, Liu D, Su Z. CIP2A mediates prostate cancer progression via the c-MYC signaling pathway Tumor Biology. 2015-01-06 [PMID: 25560487] (WB, IHC-P, Human)

Wang J, Huang T, Sun J et al. CIP2A is overexpressed and involved in the pathogenesis of chronic myelocytic leukemia by interacting with breakpoint cluster region-Abelson leukemia virus. Med. Oncol. 2014-08-01 [PMID: 25023053] (WB, Human)

Details:
CIP2A antibody used for WB in human samples. Fig. 1B shows the blot of CIP2A expression in bone marrow mononuclear cells from CML-CP patients (lanes 1-7) and healthy control (lane C). Fig. 2A and Fig 3A/B shows the CIP2A blots from K562 cells transfected CIP2A-specific or control siRNA. Fig 3C shows its levels in cells treated with CIP2A expression plasmid.

Kim JS, Kim EJ, Oh JS, Park IC, Hwang SG. CIP2A modulates cell cycle progression in human cancer cells by regulating the stability and activity of PLK1. Cancer Res. 2013-08-27 [PMID: 23983103] (IF/IHC, Human)

Xue Y, Wu G, Wang X et al. CIP2A is a predictor of survival and a novel therapeutic target in bladder urothelial cell carcinoma Med Oncol 2013-03-01 [PMID: 23275123] (IF/IHC, WB, Human)

Pallai R, Bhaskar A, Sodi V et al. Ets1 and Elk1 transcription factors regulate cancerous inhibitor of protein phosphatase 2A expression in cervical and endometrial carcinoma cells. Transcription. 2012-11-01 [PMID: 23117818]

Cristobal I, Garcia-Orti L, Cirauqui C et al. PP2A impaired activity is a common event in acute myeloid leukemia and its activation by forskolin has a potent anti-leukemic effect Leukemia 2011-04-01 [PMID: 21233840] (WB, Human)

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Products Related to NB100-68264

NBL1-12266	CIP2A Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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